

## VARIOUS OIL PRICE AND PRODUCTION LEVELS - ESTIMATED 2013-15 AND 2015-17 OIL AND GAS TAX REVENUE COLLECTIONS

This memorandum provides information on estimated 2015-17 biennium total oil and gas tax revenue collections based on various oil prices and oil production levels and changes to the estimated 2013-15 biennium and 2015-17 biennium allocations to the strategic investment and improvements fund based on changes in oil price and production.

### ESTIMATED 2015-17 BIENNIUM OIL AND GAS TAX REVENUE COLLECTION CHANGES

The gross production tax on oil is 5 percent of the gross value of oil produced at the well, excluding tribal, federal, state, and local municipality mineral interests. The oil extraction tax rate is 6.5 percent of the gross value of oil produced at the well, excluding applicable rate reductions and exemptions. The amounts shown in the schedules below reflect an effective oil and gas gross production tax rate of 4.8 percent and an effective oil extraction tax rate of 6.1 percent for oil prices above the trigger price (\$52.59). For oil prices less than the trigger price, the amounts shown below reflect an effective oil and gas gross production tax rate of 4.8 percent and an effective oil extraction tax rate of 1 percent. The effective oil extraction tax rate of 1 percent reflects the effect of the trigger price provisions in North Dakota Century Code Chapter 57-51, including a 24-month exemption for initial production from horizontal wells. The effective tax rates reflect estimates provided by the Tax Department.

The ranges for the average daily oil production levels and oil prices shown in the schedules below reflect amounts that have been adjusted proportionately to the ranges in the December 2014 revenue forecast. For example, the production range of 720,000 to 900,000 relates to average daily oil production that is 500,000 barrels per day less than the December 2014 revenue forecast for the entire 2015-17 biennium, and the price range of \$24 to \$32 relates to oil prices that are \$50 less than the December 2014 revenue forecast for the entire 2015-17 biennium.

### Total Oil and Gas Tax Revenue Collections - Various 2015-17 Biennium Estimates

The schedule below provides information on estimated 2015-17 biennium total oil and gas tax revenue collections based on various average daily oil prices and average daily oil production levels. The amount highlighted in gray reflects the total estimated oil and gas tax collections for the 2015-17 biennium based on the December 2014 revenue forecast.

Average Daily Oil Production (Barrels of Oil)		Price Levels						
		\$24 to \$32 <sup>1</sup>	\$34 to \$42 <sup>1</sup>	\$44 to \$52 <sup>1</sup>	\$54 to \$62 <sup>2</sup>	\$64 to \$72 <sup>3</sup>	\$74 to \$82 <sup>3</sup>	\$84 to \$92 <sup>3</sup>
Production Level	Variance From December 2014 Forecast	Variance From December 2014 Forecast						
		(\$50)	(\$40)	(\$30)	(\$20)	(\$10)	\$0	\$10
720,000 to 900,000	(500,000)	\$1,006,550,000	\$1,359,090,000	\$1,711,620,000	\$3,563,510,000	\$4,541,700,000	\$5,204,220,000	\$5,866,740,000
970,000 to 1,150,000	(250,000)	\$1,306,890,000	\$1,765,270,000	\$2,223,660,000	\$4,617,810,000	\$5,901,830,000	\$6,763,270,000	\$7,624,720,000
1,120,000 to 1,300,000	(100,000)	\$1,487,090,000	\$2,008,990,000	\$2,530,880,000	\$5,250,380,000	\$6,717,910,000	\$7,698,700,000	\$8,679,500,000
1,170,000 to 1,350,000	(50,000)	\$1,547,160,000	\$2,090,230,000	\$2,633,290,000	\$5,461,240,000	\$6,989,930,000	\$8,010,520,000	\$9,031,100,000
1,220,000 to 1,400,000	0	\$1,607,230,000	\$2,171,460,000	\$2,735,700,000	\$5,672,100,000	\$7,261,960,000	<b>\$8,322,330,000</b>	\$9,382,690,000
1,270,000 to 1,450,000	50,000	\$1,667,300,000	\$2,252,700,000	\$2,838,100,000	\$5,882,960,000	\$7,533,980,000	\$8,634,140,000	\$9,734,290,000
1,320,000 to 1,500,000	100,000	\$1,727,370,000	\$2,333,940,000	\$2,940,510,000	\$6,093,820,000	\$7,806,010,000	\$8,945,950,000	\$10,085,890,000

<sup>1</sup>The amounts shown for these price levels reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the entire 2015-17 biennium.

<sup>2</sup>The amounts shown for this price level reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the first five months of the 2015-17 biennium.

<sup>3</sup>The amounts shown for these price levels reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) for the entire 2015-17 biennium.

**NOTE:** The amounts reflected in these schedules are preliminary estimates. **The actual amounts for the 2013-15 and 2015-17 biennium may differ significantly from these amounts** based on actual oil price and oil production.

### Changes in Estimated 2015-17 Biennium Oil and Gas Tax Revenue Collections

The schedule below provides information on changes in estimated 2015-17 biennium oil and gas tax revenue collections based on various changes in oil price and oil production. The amounts highlighted in gray reflect the changes in estimated 2015-17 biennium oil and gas tax revenue collections based on the December 2014 revenue forecast.

Change in Estimated 2015-17 Biennium Oil and Gas Tax Revenue Collections for Change of \$1 in Average Daily Oil Price for the Biennium			Change in Estimated 2015-17 Biennium Oil and Gas Tax Revenue Collections Based on Changes in Average Daily Oil Production for the Biennium		
Average Daily Oil Production (Barrels of Oil)	Revenue Change - Oil Price Less Than the Trigger Price <sup>1</sup>	Revenue Change - Oil Price More Than the Trigger Price <sup>2</sup>	Oil Price	Revenue Change for One Barrel in Average Daily Oil Production for the Biennium	Revenue Change for 100,000 Barrels in Average Daily Oil Production for the Biennium
720,000 to 900,000	\$35,250,000	\$66,250,000	\$24 to \$32 <sup>3</sup>	\$1,201	\$120,140,000
970,000 to 1,150,000	\$45,840,000	\$86,140,000	\$34 to \$42 <sup>3</sup>	\$1,625	\$162,480,000
1,120,000 to 1,300,000	\$52,190,000	\$98,080,000	\$44 to \$52 <sup>3</sup>	\$2,048	\$204,820,000
1,170,000 to 1,350,000	\$54,310,000	\$102,060,000	\$54 to \$62 <sup>4</sup>	\$4,217	\$421,720,000
1,220,000 to 1,400,000	\$56,420,000	\$106,040,000	\$64 to \$72 <sup>5</sup>	\$5,441	\$544,050,000
1,270,000 to 1,450,000	\$58,540,000	\$110,020,000	\$74 to \$82 <sup>5</sup>	\$6,236	\$623,620,000
1,320,000 to 1,500,000	\$60,660,000	\$113,990,000	\$84 to \$92 <sup>5</sup>	\$7,032	\$703,190,000

<sup>1</sup>The amounts shown in this column reflect a reduced effective oil extraction tax rate (1 percent) related to the effect of the trigger tax provisions for the entire 2015-17 biennium.

<sup>2</sup>The amounts shown in this column reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) for the entire 2015-17 biennium.

<sup>3</sup>The amounts shown for these price levels reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the entire 2015-17 biennium.

<sup>4</sup>The amounts shown for this price level reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the first five months of the 2015-17 biennium.

<sup>5</sup>The amounts shown for these price levels reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) for the entire 2015-17 biennium.

### ESTIMATED 2013-15 AND 2015-17 BIENNIUM OIL AND GAS TAX REVENUE ALLOCATIONS - STRATEGIC INVESTMENT AND IMPROVEMENTS FUND

#### Estimated 2013-15 Biennium Allocations - Strategic Investment and Improvements Fund

The schedule below provides information on changes in estimated total 2013-15 biennium oil and gas tax revenue allocations based on actual collections and allocations through October 2014 and various changes in oil price and oil production for the remaining nine months of the 2013-15 biennium. The amounts shown reflect allocations to the strategic investment and improvements fund after any potential transfers from the strategic investment and improvements fund to the legacy fund pursuant to Section 15-08.1-08. The transfers were calculated based on the December 2014 forecasted unobligated balance for the strategic investment and improvements fund, including appropriations in the executive budget forecast, adjusted for the varying amounts of oil tax allocations to the fund. Based on the December 2014 revenue forecasts, the June 30, 2015, estimated unobligated balance in the strategic investment and improvements fund is \$1.09 billion. The amount highlighted in gray reflects the estimated total oil and gas tax revenue allocations to the strategic investment and improvements fund for the 2013-15 biennium based on the December 2014 revenue forecast.

Average Daily Oil Production (Barrels of Oil)		Price Levels			
		\$32 to \$34 <sup>1</sup>	\$42 to \$44 <sup>1</sup>	\$57 to \$59 <sup>2</sup>	\$72 to \$74 <sup>3</sup>
		Variance from Forecast			
Production Level	Variance from Forecast	(\$40)	(\$30)	(\$15)	\$0
1,030,000 to 1,120,000	(100,000)	\$695,830,000	\$779,000,000	\$912,550,000	\$1,039,130,000
1,080,000 to 1,170,000	(50,000)	\$709,650,000	\$797,140,000	\$937,050,000	\$1,070,000,000
1,130,000 to 1,220,000	0	\$723,540,000	\$815,280,000	\$961,550,000	\$1,100,860,000

<sup>1</sup>The amounts shown for these price levels reflect a reduction in oil extraction tax collections for the last four months of the 2013-15 biennium related to the potential effect of a special trigger tax provision (Section 57-51.1-03(9)) that becomes effective if the monthly average comparison price of oil is less than \$55. For the price range of \$32 to \$34, estimated oil extraction tax collections decreased by approximately \$23 million and estimated allocations to the strategic investment and improvements fund decreased by approximately \$5.2 million. For the price range of \$42 to \$44, estimated oil extraction tax collections decreased by approximately \$30 million and estimated allocations to the strategic investment and improvements fund decreased by approximately \$6.8 million.

<sup>2</sup>The amounts shown for this price level reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) without any adjustments for potential reductions related to the special trigger tax provisions (Section 57-51.1-03(9)) for the remainder of the 2013-15 biennium. However, if the monthly average comparison price of oil was less than \$55 in January 2015 and the special trigger tax provisions became effective at this price level for the last four months of the 2013-15 biennium, estimated oil extraction tax collections would decrease by approximately \$40 million and estimated allocations to the strategic investment and improvements fund would decrease by approximately \$9 million.

<sup>3</sup>The amounts shown for this price level reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) without any adjustments for potential reductions related to the special trigger tax provisions (Section 57-51.1-03(9)) for the remainder of the 2013-15 biennium.

### Estimated 2015-17 Biennium Allocations - Strategic Investment and Improvements Fund

The schedule below provides information on changes in estimated total 2015-17 biennium oil and gas tax revenue allocations to the strategic investment and improvements fund based on various changes in oil price and oil production. The amounts highlighted in gray reflect the estimated total oil and gas tax revenue allocations for the 2015-17 biennium based on the December 2014 revenue forecast.

Average Daily Oil Production (Barrels of Oil)		Price Levels						
		\$24 to \$32 <sup>1</sup>	\$34 to \$42 <sup>1</sup>	\$44 to \$52 <sup>1</sup>	\$54 to \$62 <sup>2</sup>	\$64 to \$72 <sup>3</sup>	\$74 to \$82 <sup>3</sup>	\$84 to \$92 <sup>3</sup>
Production Level	Variance from December 2014 Forecast	Variance from December 2014 Forecast						
		(\$50)	(\$40)	(\$30)	(\$20)	(\$10)	\$0	\$10
720,000 to 900,000	(500,000)	\$0	\$0	\$0	\$0	\$172,980,000	\$308,100,000	\$437,160,000
970,000 to 1,150,000	(250,000)	\$0	\$0	\$0	\$170,490,000	\$446,850,000	\$616,370,000	\$778,970,000
1,120,000 to 1,300,000	(100,000)	\$0	\$0	\$0	\$292,260,000	\$606,390,000	\$796,630,000	\$995,940,000
1,170,000 to 1,350,000	(50,000)	\$0	\$0	\$0	\$342,330,000	\$654,100,000	\$866,000,000	\$1,051,790,000
1,220,000 to 1,400,000 <sup>4</sup>	0	\$0	\$0	\$0	\$376,020,000	\$716,640,000	\$916,410,000	\$1,130,020,000
1,270,000 to 1,450,000	50,000	\$0	\$0	\$0	\$425,450,000	\$759,720,000	\$986,490,000	\$1,202,770,000
1,320,000 to 1,500,000	100,000	\$0	\$0	\$0	\$456,770,000	\$821,550,000	\$1,051,070,000	\$1,260,550,000

<sup>1</sup>The amounts shown for these price levels reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the entire 2015-17 biennium.

<sup>2</sup>The amounts shown for this price level reflect a reduced effective oil extraction tax rate (1 percent) related to the potential effect of the trigger tax provisions for the first five months of the 2015-17 biennium.

<sup>3</sup>The amounts shown for these price levels reflect the December 2014 revenue forecast effective oil extraction tax rate (6.1 percent) for the entire 2015-17 biennium.

<sup>4</sup>The following are estimated 2015-17 biennium oil tax allocations based on the December 2014 revenue forecast production level of 1.22 million to 1.4 million barrels of oil per day and varying price levels:

	\$24 to \$32	\$34 to \$42	\$44 to \$52	\$54 to \$62	\$64 to \$72	\$74 to \$82	\$84 to \$92
Legacy fund	\$444,680,000	\$600,780,000	\$756,910,000	\$1,692,040,000	\$2,229,440,000	\$2,600,420,000	\$2,957,710,000
Three Affiliated Tribes	124,970,000	168,840,000	212,710,000	417,140,000	530,430,000	607,880,000	685,330,000
Oil and gas research fund	1,590,000	3,980,000	6,510,000	10,000,000	10,000,000	10,000,000	10,000,000
Oil and gas impact grant fund	112,380,000	119,000,000	119,000,000	119,000,000	119,000,000	119,000,000	119,000,000
Political subdivisions	688,110,000	892,120,000	1,095,390,000	1,298,630,000	1,501,860,000	1,705,100,000	1,908,190,000
Abandoned well reclamation fund	9,790,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
North Dakota outdoor heritage fund	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Foundation aid stabilization fund	24,390,000	32,950,000	41,510,000	258,870,000	357,700,000	409,930,000	462,160,000
Common schools trust fund	24,390,000	32,950,000	41,510,000	258,870,000	357,700,000	409,930,000	462,160,000
Resources trust fund	48,780,000	65,910,000	83,030,000	517,740,000	715,400,000	819,870,000	924,330,000
General fund	78,150,000	194,930,000	200,000,000	300,000,000	300,000,000	300,000,000	300,000,000
Property tax relief sustainability fund	0	0	119,130,000	341,790,000	341,790,000	341,790,000	341,790,000
Strategic investment and improvements fund	0	0	0	376,020,000	716,640,000	916,410,000	1,130,020,000
State disaster fund	0	0	0	22,000,000	22,000,000	22,000,000	22,000,000
Total allocations	\$1,607,230,000	\$2,171,460,000	\$2,735,700,000	\$5,672,100,000	\$7,261,960,000	\$8,322,330,000	\$9,382,690,000